

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): C.C. Aggarwal et al.

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FOR:  METHODS AND APPARATUS FOR OUTLIER DETECTION  
FOR HIGH DIMENSIONAL DATA SETS

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Signature: *Judge E. Ryan* Date: January 23, 2001

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants' attorney wishes to bring to the attention of the Patent and Trademark Office the following documents listed on the accompanying Form PTO-1449. A copy of each listed document is enclosed.

1. C.C. Aggarwal et al., "Finding Generalized Projected Clusters in High Dimensional Spaces," Proceedings of the ACM SIGMOD Conference, pp. 1-12, 2000.
2. M.M. Breunig et al., "LOF: Identifying Density-Based Local Outliers," Proc. ACM SIGMOD 2000 Int. Conf. on Management of Data, Dallas, TX, pp. 1-12, 2000.
3. S. Ramaswamy et al., "Efficient Algorithms For Mining Outliers From Large Data Sets," Proceedings of the ACM SIGMOD Conference, pp. 1-20, 2000.
4. C.C. Aggarwal et al., "Fast Algorithms for Projected Clustering," Proceedings of the ACM SIGMOD Conference, pp. 1-12, 1999.
5. K. Beyer et al., "When Is 'Nearest Neighbor' Meaningful?," Proceedings of the ICDDT, pp. 1-19, 1999.
6. E.M. Knorr et al., "Finding Intensional Knowledge of Distance-Based Outliers," Proceedings of the 25th VLDB Conference, Edinburgh, Scotland, pp. 211-222, 1999.
7. E.M. Knorr et al., "Algorithms For Mining Distance-Based Outliers in Large Datasets," Proceedings of the 24th VLDB Conference, New York, USA, pp. 392-403, 1998.

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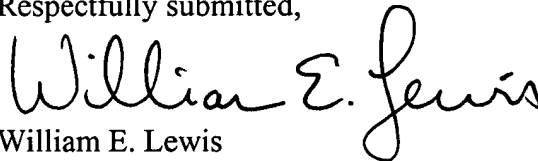
8. A. Arning et al., "A Linear Method for Deviation Detection in Large Databases," Proceedings of the KDD Conference, pp. 1-6, 1995.

9. S. Sarawagi et al., "Discovery-Driven Exploration of OLAP Data Cubes," IBM Almaden Research Center, San José, CA, pp. 1-15.

It is believed that there is no fee due in conjunction with the filing of this Information Disclosure Statement. In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **International Business Machines Corporation Deposit Account No. 50-0510** as required to correct the error.

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made, or as an admission that the information cited is considered to be material to patentability, or as a representation that no other material information exists.

Respectfully submitted,



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